

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	1	"0969452"	EPO; DERW ENT
2	BRS	L2	69684	sanyo	EPO; DERW ENT
3	BRS	L3	94	2 and kenji	EPO; DERW ENT
4	BRS	L4	1	3 and "969452"	EPO; DERW ENT
5	BRS	L5	6936	dvd near4 (ram rw)	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM_ TDB
6	BRS	L6	263	5 and (clock same divid\$5)	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM_ TDB
7	BRS	L7	134	6 and pll	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM_ TDB

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**UserID: Apsitos\_Job\_1\_of\_1**  
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**Summary**

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US006088315	22	22	0	1
Total (1)	22	22	0	-

	Time Stamp	Comments	Error Definition	Errors
1	2003/09/03 16:12			0
2	2003/09/03 16:12			0
3	2003/09/03 16:12			0
4	2003/09/03 16:14			0
5	2003/09/03 16:14			0
6	2003/09/03 16:15			0
7	2003/09/03 16:15			0

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US006304531	100	1 - 100	1
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	Type	L #	Hits	Search Text	DBs
8	BRS	L8	38	7 and (multipl\$5 near5 frequenc\$5)	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM_ TDB

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**Summary**

Document	Pages	Printed	Missed	Copies
US006009056	18	18	0	1
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	Time Stamp	Comments	Error Definition	Errors
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## Document Listing

Document	Selected Pages	Page Range	Copies
US006088315	22	1 - 22	1
Total (1)	22	-	-



inputted by the VCO 44 by a prescribed value (value specified at the controller 38) and outputs the divided results to the phase comparator 42.

Detailed Description Text - DETX (40):

The first zone is changed over to from the position on the radius where the capacity for the  $n+8$ th frame can be obtained, at the same linear density as at the innermost periphery of the 0th zone. The  $m$ th zone is then gone to from the position on the radius at which the  $n+8 \cdot m$ th frame capacity can be obtained at the same linear velocity as at the innermost periphery of the 0th zone.

Detailed Description Text - DETX (87):

When the range from the radius  $r_0$  to the radius  $r_n$  is divided into four bands by the radii  $r_5$ ,  $r_6$  and  $r_7$  so as to give a constant width of change of linear velocity, the rotational velocity of the disc, linear velocity, and the linear density and clock frequency change in the manner shown in FIG. 38 to FIG. 40.

Detailed Description Text - DETX (90):

The linear density at each zone is smaller for zones on the side of the outer periphery when compared to zones on the side of the inner periphery but the width of change is constant for whichever band of whichever zone.

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## Document Listing

Document	Selected Pages	Page Range	Copies
US20020150011	7	1 - 7	1
Total (1)	7	-	-

## Brief Summary Text - BSTX (4):

There has been applied a zone constant angular velocity (ZCAV) method for recording and reproducing data on a disk by rotating the disk at a constant rotation frequency, changing the recording data frequency step by step for respective radial zones. This method divides a surface of the disk into a plurality of radial zones in the radial direction from the outer circular tracks to the inner circular tracks. Respective radial zones have respective quantities of sectors. Each zone has a constant number of sectors per rotation in grooves formed therein. The outer radial zone has a larger quantity of sectors per rotation. Thus, the ZCAV method conducts zoning of the disk surface so as to obtain a substantially constant linear recording density on the disk independent of radial positions thereon. The capacity of the disk and the access time thereon can be thus improved.

## Brief Summary Text - BSTX (9):

Describing how the above-mentioned disk of the ZCAV system is treated in a disk recording and reproducing device, first the disk is rotated at a constant rotation frequency independent of its radial position (in other words, the outer zone has a higher linear velocity). Furthermore, a recording or reproducing data frequency relating to a data transfer rate changes zone and recording and producing clock signals are generated and applied for changing a data frequency higher at the outer peripheral side of the disk. Accordingly, the access time for the disk may be shortened since there is no need of changing the disk rotation frequency. In addition, the linear recording density can be kept at a substantially constant on any radial position on the disk by increasing the data frequency with an increase of the linear velocity at the outer zones on the disk.

## Brief Summary Text - BSTX (30):

(8) A disk recording and reproducing device has the construction mentioned above of (4) or (6) and is further characterized in that the rotation control means include programmable frequency dividing means for generating reference frequencies corresponding to rotation control information of different frequencies for each zone from disk type recording medium.

## Detailed Description Text - DETX (3):

Recently, optical disk devices are used as devices for realizing random recording and reproducing a large amount of data. The storage capacity of such optical disk devices can be increased by obtaining a constant linear recording density at any place on a disk by employing a constant linear velocity (CLV) method for accessing information on a disk at a constant relative velocity between a light pickup and an optical disk and at a constant recording data frequency. The CLV method makes the disk have a large capacity but a slow access time because circular tracks on the disk have different numbers of sectors per rotation in proportion to radial position and require correspondingly changing the rotation frequency.

## Detailed Description Text - DETX (4):

On the other hand, the access time can be shortened by employing a constant angular velocity (CAV) method for accessing information on a disk at a constant recording frequency and a constant disk-rotation frequency. The CAV method can shorten the access time to information on the disk with no need for changing the rotation frequency of the disk. However, the disk has a constant number of sectors per rotation independent of radial positions on the disk and, therefore, the outer circular tracks have smaller linear recording density. The memory capacity of the disk can not be improved by the CAV method.

## Detailed Description Text - DETX (5):

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## Document Listing

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US006556524	15	1 - 15	1
Total (1)	15	-	-

## Detailed Description Text - DETX (37):

The linear recording density can be made substantially equal between different zones, by varying the disk motor rotational speed between different zones, or by varying the frequency of the data clock during recording and playback.

## Detailed Description Text - DETX (40):

The operation of the optical disk drive for such a playback is as shown in FIG. 12. The operation including the following steps is repeated. First, the rotational speed is increased to n-times, and then the video header is detected to read an I-picture, and jump is made to the next GOP. By disposing an I-picture in the video attribute data 50, the disk motor acceleration region and the deceleration region can be set. Embodiment 4 of the invention will next be described. FIG. 13A and FIG. 13B show the data structure of the digital motion picture image according to Embodiment 4. FIG. 13A shows the structure of a GOP, FIG. 13B shows the data arrangement of the entire GOP including audio data. In the drawings, reference numerals 21 to 29 denote data identical to those described in connection with the prior art example with reference to FIG. 30 to FIG. 33. Reference numeral 130 denotes a header indicating the head of the data, 131 denotes an address of each GOP forming a unit of editing, 132 denotes attribute data attendant to the digital motion picture image data, 133 denotes an audio header indicating the head of audio data 134. Reference numeral 135 denotes a video header indicating the head of video data 136. Reference numeral 137 denotes a P-picture header indicating the head of a P-picture 29. Reference numeral 138 denotes a B-picture header indicating the head of a B-picture 28. In the drawings, P-, B- and I-pictures are respectively represented as "P-picture," "B-picture," and "I-picture."

## Detailed Description Text - DETX (41):

FIG. 14 shows the details of configuration of the digital motion picture image data arrangement in Embodiment 4. Reference numeral 139 denotes wobble pits in the sample format or a mirror surface part for offset correction in the continuous guide groove type, 140 denotes a zone address in the optical disk of a zone constant angular velocity (CAV) rotation system, 141 denotes a sector address for each sector which is a fraction of a GOP, 142 denotes a video GOP address for each video GOP, 143 denotes a video attribute data attendant to a digital motion picture image, and 145 denotes an I-picture header indicating the head of I-picture data 146. Reference numeral 147 denotes I-picture ECC (error correction code) recording the I-picture data error correction code, and 148 denotes a P-picture header indicating the head of P-picture data 149. Reference numeral 150 denotes a scalability mode, 151 denotes the number of frames within the GOP, 152 denotes the GOP structure showing the arrangement of I-, B- and P-pictures, and the like within the GOP, 153 denotes the arrangement and position of data within an I-picture, 154 denotes detailed attribute data such as presence or absence of panning, zooming and scene change, 155 denotes a time code, 156 denotes an address of destination of jump during special playback, 157 denotes an audio mode, 158 denotes a still picture mode, and 159 denotes a spare area.

## Detailed Description Text - DETX (43):

FIG. 16 shows the structure of details of the part where I-picture data is recorded on the optical disk. The video header 135 indicates the head of the video data in nth track group, 160 denotes fraction data formed of a plurality of slices for the top 1/3 part (from the top edge to a first horizontal dividing line 1/3 as measured from the top edge of the screen) of the screen of the I-picture 27. Reference numeral 162 denotes a fraction data formed of a plurality of slices for the middle 1/3 part (from the first horizontal division line to a second horizontal dividing line at 2/3 as measured from the top edge of the screen) of the I-picture 27. Reference numeral 164 denotes a fraction data formed of a plurality of slices for the bottom 1/3 part (from the second horizontal dividing line to the bottom edge of the screen) of the I-picture 27.

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US20030072229	22	1 - 22	1
Total (1)	22	-	-

According to another aspect in a storage medium including recorded in the recording and densities and recording conditions record a signal at the recording correlation information from density based on the loaded condition based on the determined preferably has a plurality of for recording a signal and conditions includes a table having a plurality of second recording conditions densities and each necessary a signal at a corresponding the steps of comparing the plurality of second recording second recording condition among the plurality of second comparing step, and specifying recording condition selected. Further preferably, the above recording of a signal if not confidence with each of the the comparison step. The determining comparing the plurality of second recording conditions second recording conditions from the plurality of second recording densities corresponding conditions, and specifying densities in response to a signal preferably changes the frequency a signal in response to the apparatus preferably further synchronizing clock signal. the frequency divider depends storage medium preferably further regions for recording prescribed data to be equal regions.

Brief Summary Text - BSTX (1

According to yet another signal from a storage medium information recorded in the recording densities and reproducing apparatus to reproduce a signal information recorded in the at which a signal has been recorded correlation information and and setting the reproducing loaded correlation information step preferably changes the reproducing a signal depending identification information. includes a frequency divider changing step changes the density upon the recording density

Brief Summary Text - BSTX (1

Since the storage medium correlation between recording

U.S. Patent

Jan. 15, 2002

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FIG. 9A

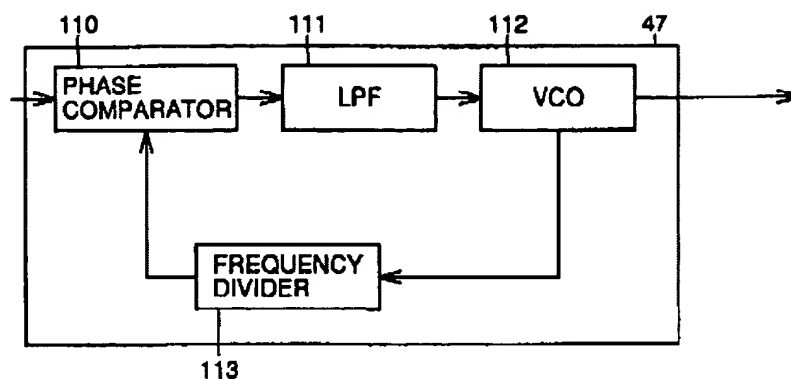
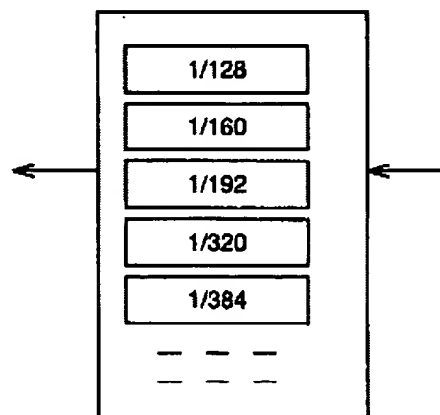


FIG. 9B



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US006189053	23	1 - 23	1
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